

28 June 99

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1. (Currently Amended) A receiver, comprising:

11 Ke 1

a filter which outputs an input signal containing a plurality of channels by rejecting an image band in a frequency converting process;

a frequency converter having an analog orthogonal demodulator, which converts the frequency of said plurality of channels into the low range in batch when the input signal whose image band has been rejected by said filter is inputted;

an image rejecting device which rejects and outputs said image band of the signal of said plurality of channels whose frequency has been converted by said frequency converter;

an A/D converter which converts the signal of said plurality of channels which is the output of said image rejecting device into a digital signal; and

a channel selector which selects a desirable channel out of the signals of said plurality of channels contained in the output of said A/D converter by digital processing;

wherein said frequency converter divides the input signals containing said plurality of channels into a plurality of sub-bands and converts the frequency of the output of said filter into the low range per said sub-band.

Claim 2. (Currently Amended) A receiver, comprising:

a filter which outputs an input signal containing a plurality of channels by rejecting an image band in a frequency converting process;

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a frequency converter having an analog orthogonal demodulator, which converts the frequency of said plurality of channels into the low range in batch when the input signal whose image band has been rejected by said filter is inputted;

an A/D converter which converts the signals of said plurality of channels whose frequency have been converted by said frequency converter into a digital signal;

a channel selector which selects a desirable channel out of the signals of said plurality of channels contained in the output of said A/D converter by digital processing; and

an image rejecting device which rejects said image band before, during or after said digital processing of said channel selector;

wherein said frequency converter divides the input signals containing said plurality of channels into a plurality of sub-bands and converts the frequency of the output of said filter into the low range per said sub-band.

Claims 3-7. (Canceled)

Claim 8. (Currently Amended) ~~The A receiver according to Claim 1 or 2, comprising:~~
a filter which outputs an input signal containing a plurality of channels by rejecting an image band in a frequency converting process;

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a frequency converter having an analog orthogonal demodulator, which converts the frequency of said plurality of channels into the low range when the input signal whose image band has been rejected by said filter is inputted;

an image rejecting device which rejects and outputs said image band of the signal of said plurality of channels whose frequency has been converted by said frequency converter;

an A/D converter which converts the signal of said plurality of channels which is the output of said image rejecting device into a digital signal; and

a channel selector which selects a desirable channel out of the signals of said plurality of channels contained in the output of said A/D converter by digital processing;

wherein said frequency converter comprises:

a local oscillator which divides the band of said plurality of channels into a plurality of sub-bands and outputs a local oscillating output whose frequency has been changed at intervals of the band width or more of said sub-band; and

an analog orthogonal demodulator which converts the frequency of the input signals of said plurality of channels into the low range per each sub-band by multiplication of said local oscillating output and said input signals.

Claim 9. (Currently Amended) ~~The A receiver according to Claim 1 or 2, comprising:~~
a filter which outputs an input signal containing a plurality of channels by rejecting an image band in a frequency converting process;

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a frequency converter having an analog orthogonal demodulator, which converts the frequency of said plurality of channels into the low range when the input signal whose image band has been rejected by said filter is inputted;

an image rejecting device which rejects and outputs said image band of the signal of said plurality of channels whose frequency has been converted by said frequency converter;

an A/D converter which converts the signal of said plurality of channels which is the output of said image rejecting device into a digital signal; and

a channel selector which selects a desirable channel out of the signals of said plurality of channels contained in the output of said A/D converter by digital processing;

wherein said frequency converter comprises:

a local oscillator which divides the band of said plurality of channels into a plurality of sub-bands and outputs a local oscillating output whose frequency is on the outside of the scope of the band of each sub-band and whose frequency has been changed at intervals of the band width or more of said sub-band; and

an analog orthogonal demodulator which converts the frequency of the input signals of said plurality of channels into the low range ~~in batch~~ per each sub-band by multiplication of said local oscillating output and said input signals.

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Claims 10 and 11 (Canceled)

Claim 12. (New) A receiver, comprising:

like 5-16

a filter which outputs an input signal containing a plurality of channels by rejecting an image band in a frequency converting process;

a frequency converter having an analog orthogonal demodulator, which converts the frequency of said plurality of channels into the low range when the input signal whose image band has been rejected by said filter is inputted;

an A/D converter which converts the signals of said plurality of channels whose frequency have been converted by said frequency converter into a digital signal;

a channel selector which selects a desirable channel out of the signals of said plurality of channels contained in the output of said A/D converter by digital processing; and

an image rejecting device which rejects said image band before, during or after said digital processing of said channel selector;

wherein said frequency converter comprises:

a local oscillator which divides the band of said plurality of channels into a plurality of sub-bands and outputs a local oscillating output whose frequency has been changed at intervals of the band width or more of said sub-band; and

an analog orthogonal demodulator which converts the frequency of the input signals of said plurality of channels into the low range per each sub-band by multiplication of said local oscillating output and said input signals. *like 5*

Claim 13. (New) A receiver, comprising:

a filter which outputs an input signal containing a plurality of channels by rejecting an image band in a frequency converting process;

a frequency converter having an analog orthogonal demodulator, which converts the frequency of said plurality of channels into the low range when the input signal whose image band has been rejected by said filter is inputted;

an A/D converter which converts the signals of said plurality of channels whose frequency have been converted by said frequency converter into a digital signal;

a channel selector which selects a desirable channel out of the signals of said plurality of channels contained in the output of said A/D converter by digital processing; and

an image rejecting device which rejects said image band before, during or after said digital processing of said channel selector;

wherein said frequency converter comprises: *1/*

1 a local oscillator which divides the band of said plurality of channels into a plurality of sub-bands and outputs a local oscillating output whose frequency is on the outside of the scope of the band of each sub-band and whose frequency has been changed at intervals of the band width or more of said sub-band; and

an analog orthogonal demodulator which converts the frequency of the input signals of said plurality of channels into the low range per each sub-band by multiplication of said local oscillating output and said input signals.

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